

**Lead Exposures from Drinking Water in Seattle Schools
AE#2 (Decatur Elementary) August 25, 2004**

Mark S. Cooper, Ph.D.

Contact information:

206/683-4182 (cell)

cooperolmstead@attglobal.net

for additional information, see: www.leadinseattleschools.org

“Telling parents whose children have blood lead levels below 10 microgram/deciliter that all is well, is overly simplistic.”

**Bruce Lanphear, M.D., M.P.H. Director of the Cincinnati Children’s Hospital
Environmental Health Center**

AMNews: June 7, 2004

Lead Poisoning Remains a Threat for Kids

<http://www.ama-assn.org/amednews/2004/06/07/hlsd0607.htm>

“Lead Poisoning, or, There is No Safe Level of Lead”

“...While these figures look reassuring at first look, with “only” 3.8% of District (of Columbia) children having a lead level 10 microgram/deciliter or higher, the reader should remember that even at 5 microgram/deciliter, or lower, neurocognitive and behavioral effects have been documented.”

Dana Best, M.D., M.P.H. Children’s National Medical Center, Washington, D.C.

***Testimony to U.S. Senate Committee on Exposures of Washington, D.C.
Children to Lead in Drinking Water (4/7/04)***

http://epw.senate.gov/hearing_statements.cfm?id=220242

Agenda (please refer to the 3 additional handouts)

- I. How much damage was done to Seattle schoolchildren through their ingestion of lead-contaminated drinking water?
- II. How can we prevent similar exposures from happening again?
- III. Why did these exposures to lead-contaminated drinking water occur in our schools?

I. How much damage was done?

“Lead Poisoning, or, There is No Safe Level of Lead”

“...While these figures look reassuring at first look, with “only” 3.8% of District (of Columbia) children having a lead level 10 microgram/deciliter or higher, the reader should remember that even at 5 microgram/deciliter, or lower, neurocognitive and behavioral effect have been documented.”

Dana Best, M.D., M.P.H. Children’s National Medical Center, Washington, D.C.

Testimony to U.S. Senate Committee on Exposures of Washington, D.C. Children to Lead in Drinking Water (4/7/04)

The World Health Organization has a set a Maximum Tolerable Lead Intake level at 3.7 microgram/kilogram body weight per day.

For a 20-kg child, this corresponds to approximately 75 micrograms of lead per day, from all sources (e.g. food, air, and water).

<http://www.cape.ca/children/neuro4.html>

"It has been calculated by the World Health Organization that a **child’s lead exposure of 3.7 micrograms/kg/day** will result in a **blood lead level of 10 micrograms/dL**. The actual exposure would be 0.06 mg¹³ or perhaps the amount of pure lead *that could fit on the head of a pin*. It is no wonder that extreme lead poisoning can result from childhood exposure to dust and flakes of old lead-bearing paint which can typically contain 20% or even as much as 50% pure lead... It is easy to see how very low levels of lead contamination from a multiplicity of sources can approach or exceed

the amount needed to contribute to a **blood lead level of 10 micrograms/dL.**"¹⁴

(ref 13) Calculated on the basis of an exposure level of 3.7 micrograms/kg/day for a 13 kg child over 14 days.

(ref 14) Canadian Environmental Law Association and Ontario College of Family Physicians, Environmental Health Committee, Environmental Standard Setting and Children's Health. Case Study #1: Standard Setting for Lead - The Cautionary Tale (author, Kathleen Cooper), p.236, 2000.

A. A 20-kg (44 lbs) child drinking 300 ml (=0.3 liter) of 250 ppb (= microgram/liter) lead-laced water per day, will be consuming 3.7 micrograms/kg of body weight/day.

It is estimated that this rate of consumption of lead-contaminated drinking water will result in the child's blood lead level reaching 10 microgram/deciliter.

B. Recent studies show that neurological and other physiological effects are seen, in both children and adults, when blood lead levels reach 5 to 10 micrograms/deciliter. (a deciliter (dL) is 100 ml, or 1/10 of a liter).

C. A child at AE#2 (Decatur), or Wedgwood Elementary, drinking 0.5 liter of 1000 ppb lead-contaminated drinking water from a contaminated fountain, would be ingesting:

0.5 liter X 1000 microgram/liter = 500 micrograms of lead in a single day.

This "worst-case scenario" lead ingestion exposure for a single day at a Seattle school is 15-fold higher (!!!) than an estimated daily lead exposure rate for a child at home during summer break (i.e. approximately 30 microgram/day from all sources).

Using estimates provided by the World Health Organization (WHO), a 3-fold INCREASE in the average lead exposure rate, to 75 microgram/day, is estimated to elevate the blood lead level of a 20 kg (44 lbs) child to around 10 microgram/deciliter in several months, where IQ deficits and other neurological effects are known to occur.

Using a precautionary principle, exposures should be limited to prevent children from exceeding 5 micrograms/deciliter.

Therefore, the Seattle School Board should adopt an “action limit” of 10 ppb for lead in school drinking water.

The Seattle School Board should also adopt the precautionary goal of setting a maximum tolerable limit of 10 micrograms per day from school drinking water.

from: EPA Drinking Water website

<http://www.epa.gov/safewater/dwh/t-ioc/lead.html>

Technical Factsheet on: LEAD

Drinking Water Standards

Maximum Contaminant Level Goal: zero ppb

Action Level: > 0.015 mg/L (i.e. 15 ppb) in more than 10 percent of tap water samples

Health Effects Summary

Acute: Lead can cause a variety of adverse health effects in humans. At relatively low levels of exposure, these effects may include interference with red blood cell chemistry, delays in normal physical and mental development in babies and young children, slight deficits in the attention span, hearing, and learning abilities of children, and slight increases in the blood pressure of some adults. **It appears that some of these effects, particularly changes in the levels of certain blood enzymes and in aspects of children's neurobehavioral development, may occur at blood lead levels so low as to be essentially without a threshold.**

Chronic: Chronic exposure to lead has been linked to cerebrovascular and kidney disease in humans.

Cancer: Lead has the potential to cause cancer from a lifetime exposure at levels above the action level (i.e. 15 ppb).

(added note: **The State of California has declared lead a known animal carcinogen, and a probable human carcinogen, and has set a Public Health Goal of 2 ppb for lead in drinking water.**

see:

http://www.oehha.ca.gov/water/phg/referenced_docs/lead_c.html)

(added note: Lead is viewed as a “facultative” carcinogen. The heavy metal does NOT mutate DNA. Instead, lead appears to block processes that are involved in DNA repair (Silbergeld, E. (2003) Facilitative mechanisms of lead as a carcinogen. Mutation Research 533: 121-133).

(2) Lead Contamination in the District of Columbia Water Supply. Oversight Hearing by the Committee on Government Reform. March 5, 2004

Testimony of Professor Ellen K. Silbergeld, Ph.D. Bloomberg School of Public Health, Johns Hopkins University. Baltimore, MD.

<http://www.dccwatch.com/wasa/040305g.htm>

....I have conducted research on lead toxicity, exposures, and mechanisms for 30 years at Johns Hopkins, the National Institutes of Health, and the University of Maryland Medical School. My recently, my research group has published three major papers on the association between lead and cardiovascular disease, the role of genetics in lead toxicity, and the mechanisms by which lead can increase risks of cancer. This work has been recognized by several awards, notably the Barsky Award from the APHA and a MacArthur Fellowship. In 1988, the lead industry referred to me an “an ardent anti-lead activist” and I am proud of that characterization, which reflected my participation in what has been called the major environmental achievement of the last century, the bipartisan effort to eliminate lead from gasoline.

I live in a city (i.e. Baltimore) that last year had its own problems with lead in drinking water, including failures to disclose information and inexcusable delays in taking needed actions to protect the health of children in our

schools. As in DC, it took the attention of the media and pressure from parents to elicit compliance with the law.
From this experience, I would suggest to this Committee that the issue before you today is unlikely to be limited to the District of Columbia .

...more recent studies suggest that our work is not over, that the toxic effects of lead on children and adults may occur even at blood lead levels that are currently accepted in regulation and public health (Canfield et al., 2003).

....**But lead exposure via drinking water alone can by itself be sufficient to induce toxicity, especially in young infants.** In a landmark paper in 1967, Sir Abraham Goldberg and his colleagues traced the etiology of a cluster of mentally retarded children in Glasgow to the storage of drinking water in lead lined tanks (Gibson et al. 1967). Shannon and Graef (1989) reported the case of an infant poisoned by drinking water with a lead concentration of 130 ppb. **EPA considers that “lead at concentrations of 40 ppb or higher poses an imminent and substantial endangerment to the health of children and pregnant women”** (www.epa.gov, drinking water information site; see Sherlock et al. (1984) for data supporting this statement)....

In her testimony before Congress, Professor Silbergeld refers to a recent study by researchers studying the effects on low blood lead levels on children's intelligence. See below:

Canfield, R.L. et al. (2003) Intellectual impairment in children with blood lead levels concentrations below 10 microgram per deciliter. New England Journal of Medicine. 348: 1517-26.

(a deciliter is 1/10 of a liter)

Results: The blood lead concentration was inversely and significantly associated with IQ. In the linear model, each increase of 10 microgram per deciliter in the lifetime average blood lead concentration was associated with a 4.6-point decrease in IQ ($P=0.004$), whereas for the subsample of 101 children whose maximal lead concentration remained below 10 microgram per deciliter, the change in IQ associated with a given change in lead concentration was greater. When estimated in a nonlinear model with the full sample, IQ declined by 7.4 points as lifetime average blood lead concentrations increased from 1 to 10 microgram per deciliter.

Conclusions: **Blood lead concentrations, even those below 10 microgram per deciliter, are inversely associated with children's IQ scores at three and five**

years of age, associated declines are greater at these concentrations than at higher concentrations. These findings suggest that more U.S. children may be adversely affected by environmental lead than previously thought.

(3) For Some, a Trickle of Lead Information (Washington Post article)

<http://www.washingtonpost.com/wp-dyn/articles/A31703-2004Mar4.html>

Should elevated levels in drinking water be a cause for alarm?

It's a cause for concern if it results in elevated levels of lead in the bloodstream. When lead builds up in the body, it can hinder brain development and damage the nervous system, red blood cells and kidneys. Young children and fetuses are at greatest risk. **Experts have cited research showing that infants who drank baby formula made with water with lead levels of 30 to 40 parts per billion for three months suffered neurological damage.** WASA tests found average lead levels of 150 parts per billion (i.e. in the water of D.C. homes). People worried about lead poisoning should get their blood tested. The D.C. Department of Health plans to offer free blood screenings for pregnant and nursing women and children younger than 6.

Online References dealing with Lead in Drinking Water and its Threat to Children

(1) <http://www.dcwatch.com/wasa/040305g.htm>

recent Congressional Testimony by Prof. Ellen Silbergeld, in response to Lead Contamination in D.C. Water Supply

(2) http://www.islamset.com/healnews/Bulletin/En_lead.html

Statement from the World Health Organization

(3) http://epw.senate.gov/hearing_statements.cfm?id=220242

Statement of Dana Best, M.D., M.P.H.

Director, Smoke Free Homes Project
Medical Director, Healthy Generations Program
Assistant Professor, George Washington University
School of Medicine and Health Sciences
Children's National Medical Center
Washington, DC
Oversight on D.C. Drinking Water

(4) <http://www.ama-assn.org/amednews/2004/06/07/hlsd0607.htm>

Lead poisoning remains a threat for kids

Risks, whether from paint, drinking water or other environmental sources, are also high for women who are pregnant or nursing.

Danger levels

The CDC established its current lead exposure standard of 10 µg/dL of blood in 1991, and many believe that the level should be lower still.

Telling parents whose children have blood lead levels below 10 that all is well is *overly simplistic*, said Dr. Lanphear.

434,000 children in the nation have unsafe levels of lead in their blood.

"We know that blood lead levels can change very quickly in the first two years of life," he said. A very young child with an already elevated level of 9 µg/dL of blood, for example, should prompt concern that his or her lead levels will likely surpass the danger point.

Recent research has also found that blood lead levels lower than 10 pose a risk. "Even within the zero to 10 range, there is still a relation between exposure to lead and children's IQ scores," said Richard Canfield, PhD, senior research associate in Cornell University's Division of Nutritional Sciences in New York.

Dr. Canfield led a five-year-study that found intellectual impairments in children whose blood lead levels were below the CDC's threshold. The study followed 172 children in the Rochester, N.Y., area whose blood lead

level was assessed at ages 6, 12, 18, 24, 36, 48 and 60 months. Their IQs were tested when they were 3 and 5 years old.

"We estimated that, after controlling for a large number of factors, the children would be expected to lose about seven points of IQ over the first 10 microgram/deciliter of blood, which is a lot," said Dr. Canfield.

II. How Can We Prevent Exposures from Happening Again?

Plan of Action

1. Insist that the Seattle School Board comply with its previous promises to provide safe, clean potable water to Seattle schoolchildren, that meets both federal primary (health) and secondary (aesthetic) water quality standards in all locations, in all schools.

2. The Seattle School Board should also adopt an "action limit" of 10 ppb for lead in school drinking water.

3. The Seattle School Board should also adopt the precautionary goal of setting a maximum tolerable limit of 10 micrograms per day from school drinking water.

4. Testimony of Prof. Ellen Silbergeld and Prof. Dana Best should be included on the District's website, as counterpoint to the position that lead-contaminated drinking water was not a significant threat to the health of Seattle schoolchildren.

5. Lead paint testing for all 4 schools (Schmitz Park, Fairmont Park, NOVA, Wedgwood) that were remodeled this summer. The dust for the drywalls repairs may contain toxic levels of lead paint.

6. District must turn over all documents for plumbing projects budgeting into the BTA II Capital Levy.

7. District must turn over all documents pertaining to the hiring of outside testing firms to test schools for lead in drinking water, e.g. Clayton Environmental at Schmitz Park Elementary.

8. Dr. Mark Cooper will help parents set up study for lead in the dentine of primary (milk) teeth of students from Decatur and Wedgwood.

9. Insist that the District test drinking water in all day cares, preschools, and community centers that it rents to, or provides building space to. Remediate contaminated plumbing in those locations.

10. Join efforts to obtain laws and regulations in Washington State to ensure clean, safe drinking water that meets both primary (health) and secondary (aesthetic) water quality standards for all Washington's schoolchildren.

11. Insist that Superintendent Manhas make a publicly acknowledge of the actions of his staff, since he took office:

Manhas should explain (1) the motivations of the District facilities personnel and facilities planners for not replacing corroded and/or lead-contaminated pipes, (2) their lack of notification of Phase VII lead test results to the public, (3) their lack of monitoring that flushing was being performed rigorously in each school, (4) acknowledge that he did not make sure that drinking water fountains were turned off throughout the District, before the fountains had been adequately tested, (5) that he personally had to intercede in response to parent complaints to make sure that all fountains were turned off this Spring.

In particular, Manhas should admit to the press and the public that head District facilities planners actively decided to defer maintenance on corroded and lead-contaminated drinking water pipes, in order to save money for major school remodels. Manhas should also admit that the District's Facilities Department policy was that pipes had to have both high lead AND low water pressure before the facilities planners would consider them for replacement.

Without providing an explanation for the actions of his staff, since he become Chief Operating Officer, and then Superintendent, Raj Manhas demonstrates that he does not stand for accountability. Where there is no accountability, there can be no safety for children.

12. Use pressure from citizens and legislators to force the State Board of Health to adopt immediate safeguards to protect school drinking water. The State Board of Health must explain why it has never adopted safe drinking water guidelines for schools without their own water source (e.g. a well). The State Board of Health must also explain why it never adopted the 1988 Lead Contamination Control Act into the Washington Administrative Codes to protect all schools and day cares.

13. Insist that the Seattle School Board adopt a lead standard of 10 ppb for Maximum Contaminant Level for first-draw drinking water.

14. Recommend that the Seattle School Board adopt reverse osmosis filters for ALL potable water sources in the District to meet the 10 ppb lead in drinking water standard.

15. Test ALL faucets in the Seattle School District. In 1990-1992, a large number of tested faucets in the District were contaminated with lead above 20 ppb. FEW, IF ANY, were remediated.

Lead contaminated faucets provide strong evidence of lead contamination in connecting pipes. Central piping is much more expensive to replace than

fountains. The District is dragging its feet to test faucets in all locations for lead contamination, or to acknowledge the implications of the 1990-1992 faucet data. Such data indicates that dozens of schools need to have their corroded pipes replaced. District Facilities Planners are trying to avoid the cost and time commitment of doing these pipe replacements. Money would have to be diverted from large-scale school remodels to pay for pipe replacements, and expensive building remodeling projects would have to be delayed or scaled back.

It is time that drinking water quality, and scheduled remediation of corroded pipes, becomes a funding priority for the Facilities Planners. Our School Board needs to come to this realization as well.

III. Why Did Exposures to Lead-Contaminated Drinking Water Occur in the Seattle Schools?

Background Information

Email from Dr. Mark Cooper to Mr. John Vacchiery, Executive Director of Facilities Planning, Enrollment and Development, Seattle School District.

December 10, 2003

Dear Mr. Vacchiery,

Dr. Geoffrey Compeau and I have been contacted by your assistant Ms. Julie Krick, who has informed us that you would like to meet with you at 3 pm this coming Friday (Dec. 12).

We would be willing to meet with you provided that we agree upon an agenda for the meeting. We insist on having at least one School Board member present at the meeting, preferably Director Sally Soriano or Director Brita Butler-Wall.

Agenda for December 12 Meeting, 3 pm

We wish to receive the following materials, at the beginning of the meeting:

1. Two photocopies of the entire Economic Engineering Services, Inc. (EES) (1990-1992) study, dealing with Lead contamination in the Seattle Schools.
2. We also wish to receive any additional test data since 1992 on Wedgwood Elementary, EC Hughes and Schmitz Park Elementary.

3. A list of drinking water infrastructure remediations performed on Wedgwood Elementary, Schmitz Park and EC Hughes since 1990.

We then wish to discuss the following items:

4. On what basis was the drinking water at Wedgwood Elementary declared safe to drink? The 1992 EES test results indicate that numerous water outlets in Wedgwood Elementary exceeded the Maximum Contaminant Levels (20 ppb) for Lead. 2/3 of water outlets tested in November 1992 were above 30 ppb, 1/3 of the outlets were above 60 ppb. In 2001, Patty Flowers was informed by the District that the water was safe to drink when she became Wedgwood Elementary's Principal. This last week, the District publicly declared the water at Wedgwood Elementary safe to drink.

5. Why was Wedgwood Elementary not remediated in 1992, when it was known that the Lead contamination exceeded the primary Maximum Contaminant Level? This is inconsistent with your stated policy (Nov. 5 School Board Meeting) that pipes are replaced once the primary Maximum Contaminant Level for Lead or Cadmium is exceeded.

The EES report states that the pipes of Wedgwood Elementary were corroded, and were likely to be a source of the measured Lead contamination.

6. Why has the District, over the past 12 years, failed to adequately notify parents, teachers, principals, and other school employees of the extensive amount of Lead contamination in the Seattle Schools?

7. What is the District's plan to remediate the existing Lead contamination and decayed drinking water pipes in the schools?

If you have additional items that you would like to discuss with us, please communicate them to me by email. We would like to receive an email communication from either you or Ms. Crick, confirming your agreement to meet with us.

Sincerely,

Mark S. Cooper, Ph.D.
206/683-4182

Seattle Schools Policy and Legislative Committee Meeting (June 23, 2004)

To: Seattle School Board and Superintendent Raj Manhas

From: Dr. Mark S. Cooper

Subject: Decision to Allocate \$10M to Remediate Corroded Drinking Water Pipes
at an Ad Hoc Meeting held Dec. 12, 2004

Dear Seattle School Board Members:

Last December, Mr. John Vacchiery requested a meeting between Dr. Compeau and myself to discuss water quality issues and corroded water pipes in the Seattle School District. Both Director Sally Soriano and Superintendent Raj Manhas attended this meeting. An agreement was reached to increment an upcoming BTA II Capital Levy (February 2004) by \$10M to provide funds to remediate corroded drinking pipes.

This agreement was reached before Dr. Compeau and myself had had a chance to review the Phase I through Phase VII lead contamination test data that the Seattle School District had obtained during the previous 13 years. The Phase I through Phase VII data was provided to us by Mr. John Vacchiery at the beginning of the Ad Hoc meeting on December 12, but discussions at the Dec. 12 Ad Hoc meeting centered on corroded pipe remediation, rather than remediating lead contamination.

It is important to note that both Mr. Vacchiery and Superintendent Manhas agreed to allocate \$10M to remediate corroded drinking water pipes before the Phase I-VII lead contamination reports were reviewed by Dr. Compeau and myself. Dr. Compeau and myself had been given only the Phase I-V data for Wedgwood Elementary prior to the meeting (faxed to us on Dec. 1, 2003), after we had specifically requested this report.

As the Seattle School Board deliberates the need to remediate drinking water infrastructures during the Summer of 2004, I request that the minutes of the Dec. 12 Ad Hoc meeting be reviewed in order to consider prior funding priorities, which were based upon publicly acknowledged corrosion of drinking water pipes in 40 schools.

I respectfully request that the School Board's receipt of the minutes of this Ad Hoc Meeting, held December 12, 2003, at the Stanford Center for Educational Excellence, be recorded into the minutes of this Policy and Legislative Committee meeting.

Sincerely,

Mark S. Cooper, Ph.D.
206/683-4182

Ad Hoc Meeting on Clean Drinking Water in Schools

Friday, December 12, 2003

Dir. Sally Soriano, Supt. Raj Manhas, John Vacchiery, Dr. Mark Cooper,
Dr. Geoff Compeau (notes taken by Director Sally Soriano)

1. Possibility of Paying for Water Pipe Remediation by Capital Levy
(2004)
Option A

The Board could increase the amount of the Capital Levy (now at \$178 million) by \$10 million to repair the water pipes. This Levy increase would require a vote on an amended resolution by the Board. It would be possible for the Board to take up this resolution at the Board meeting on December 17.

Option B

It would be possible to reapportion the \$178 million Levy. There is a 45-day rule that allows reapportionment of Levy monies. The deadline for this action would be this Friday, December 19. John said he has had experience in reapportioning Levies and would suggest taking the \$10 million needed for water pipes out of the technology component.

Technology comes up every three years, whereas other Levy components come up only every six years. However, John stated this reapportionment would be the more difficult of the two options. This technology component has already been under discussion for two and a half years with the community.

Consensus:

We think it would be preferable to increase the amount of the Levy by \$10 million at the Board meeting this Wednesday. This Levy increase for the remediation of school water pipes could then be publicized by Board members in their January community meetings. Dr. Cooper and Dr. Compeau said they would write a newspaper op-ed stating that this infrastructure deficit has been corrected.

2. Administrative Announcement to be Sent to Schools

Raj will send out an administrative announcement on Monday, December 15, to schools who have older pipes (approximately 40 schools). Schools with newer pipes will receive a separate announcement. Two accompanying documents will also be mailed. Principals will be told:

1) Drinking fountains and faucets must be flushed twice a day. Students should, however, bring drinking water from home and not drink from fountains or faucets if possible (see document #1 - „Wedgewood‰ Phase I & II Report). This is only a temporary solution. When testing is implemented, the goal is to reduce Lead towards zero parts per billion (ppb), the EPA recommendation for schools.

2) In January, when students return from the holidays, bottled water will be provided by the District in every school (Minnesota guidelines indicate that a water outlet should be considered as contaminated until proven otherwise).

3) A water testing program (Lead, Cadmium, Zinc & Copper) for all schools is currently being designed by the District and will be implemented as soon as it is completed (probably just after the holidays). There will also be a follow-up plan for continual systematic testing (see document #2 „Reducing Lead In Drinking Water: A Manual for Minnesota,s Schools‰).

?4) The possibility of the Board voting Wednesday to raise the Capital Levy by \$10 million to pay for new pipes and drinking water fixtures in schools.

3. Choosing Labs to Do Water Testing

One example could be North Creek Analytical. They could test for all three elements (Cadmium, Lead, Zinc, Copper) using an inductively coupled plasma testing. This involves taking individual samples, then zeroing in on any problems found. Both Mark and Geoff know this to be a competent company. In 2-3 weeks they could take 1,500 samples and test them at a cost of about \$15 per sample.

4. Designing the Water Testing Plan

The District should talk to the EPA. In addition they should ask the State Board of Health, Office of Drinking Water, for their advice and help on this water testing plan to be implemented in January. This Office might be able to do the sampling and testing for free. It would require trained personnel. Six pairs of people could probably take samples in 3-4 schools a day.

The District would need to work with the State's Office of Drinking Water on protocol and data collection. Would we then replicate the early 1990,s study? John found a problem in the 1990 testing. The kitchen water was not tested. Also, Geoff added that the MCL,s in 1990 were at 50 and are now at 20 pbb (for Lead). There is also the issue of secondary standards (stricter standards by the state over the federal). This problem will most likely go away after the pipes are fixed. Minnesota has a reasonable solution for testing school drinking water. Such a testing plan could be implemented without Board policy. It would be done administratively. Then there must be an independent audit. This external oversight could be from the State's Office of Drinking Water (have grants).

5. Time Line for Replacing Drinking Water Pipes

It would most likely take 2-4 summers (about the same time line as electrical upgrades). In the meantime, bottled water will be provided for all schools. One contractor would work in 4 schools simultaneously (10 schools a year).

At the same time the contractors would also deal with the asbestos.

Appendix

The Seattle School District has violated section **300j-24 (d) (2)** of the **1988 Lead Contamination Control Act**

1988 Lead Contamination Control Act applies to All Schools

<http://www4.law.cornell.edu/uscode/42/300j-24.html>

Sec. 300j-24. - Lead contamination in school drinking water

(d) Remedial action program

(1) Testing and remedying lead contamination

Within 9 months after October 31, 1988, each State shall establish a program, consistent with this section, to assist local educational agencies in testing for, and remedying, lead contamination in drinking water from coolers and from other sources of lead contamination at schools under the jurisdiction of such agencies.

(2) Public availability

A copy of the results of any testing under paragraph (1) shall be available in the administrative offices of the local educational agency for inspection by the public, including teachers, other school personnel, and parents. **The local educational agency shall notify parent, teacher, and employee organizations of the availability of such testing results.**

<http://www.health.state.mn.us/divs/eh/water/schools/pbschoolguide.pdf>

The Lead Contamination Control Act (LCCA) of 1988

This law applies to all schools, whether they purchase water from water utility (i.e. city or rural water) or they supply their own water (i.e. well).

Questions for District Officials:

Ron English – Assistant District Counsel

John Vacchieri – Executive Director of Facilities Planning, Enrollment and Development

Ed Heller – Manager of Maintenance

Troy White – Environmental Coordinator

Mike Skutack – Project Manager, BTA II Capital Levy

Steve Nielson – Director of Facilities in 2002 during Phase VII lead testing study (now Director of Finance)

Raj Manhas – Chief Operating Officer in 2002 (now Superintendent)

1. Why was the Phase VII (2001 / 2002) lead testing program started by the Facilities Department, and then stopped?
2. Why was the public not informed of the Phase VII lead test results, as is required by the federal 1988 Lead Contamination Control Act?
3. Has the District used outside testing firms, such as Clayton Environmental, to test for water quality or lead-contamination in ANY of its schools, between 1992 and 2004?
4. If so, why has the District not informed the public of these water quality tests.
5. Why has the District failed to comply with a Freedom of Information request to obtain documents for plumbing projects budgeting into the BTA II Capital Levy? Outraged citizens want to look at the plumbing plans for new pipes for “science labs” in 6 schools, including Aki Kurose and View Ridge.